

PTO/SB/08A (08-03)

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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

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Complete if Known

Application Number	10/796,246
Filing Date	March 9, 2004
First Named Inventor	Salman Akram
Art Unit	2811
Examiner Name	Mitchell
Attorney Docket Number	MIO 0069 VA/40509.245

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document Country Code ² *Number ⁴ *Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
JHM		JP 403096266	04/22/1991	Takemura		
		JP 403187253	08/15/1991	Kobayashi		
		JP 20011102512	04/13/2001	Tokoro		
JHM		JP 359111350	06/27/1984	Saeki		

REMARKS Considered 7/18/05
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EX-1010

Signature **Ex-1010** **Considered** **7/15/05**

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**Examiner
Signature**

5-11-11

Date Considered

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Sheet 1 of 5

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Application Number	10/796,246
Filing Date	March 9, 2004
First Named Inventor	Salman Akram
Art Unit	2811
Examiner Name	Mitchell

Attorney Docket Number MIO 0069 VA/40509.245/99-1058.0

CLASS 5/18/05

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
<i>JH</i> Number-Kind Code ² (if known)					
		US- 6,236,109	05/22/2001	Hsuan et al.	
		US- 6,388,336	05/14/2002	Venkateshwaran et al.	
		US- 6,303,981	10/16/2001	Moden	
		US- 6,646,334	11/11/2003	Hur	
		US- 6,337,510	01/08/2002	Chun-Jen et al.	
		US- 6,118,176	09/12/2000	Tao et al.	
		US- 5,463,253	10/31/1995	Waki et al.	
		US- 5,283,717	02/01/1994	Hundt	
		US- 5,254,871	10/19/1993	Benavides et al.	
		US- 5,212,402	05/18/1993	Higgins, III	
		US- 6,093,969	07/25/2000	Lin	
		US- 5,247,423	09/21/1993	Lin	
		US- 5,982,038	11/09/1999	Toy et al.	
		US- 6,388,336	05/14/2002	Venkateshwaran et al.	
		US- 5,656,856	08/12/1997	Kweon	
		US- 5,838,546	11/17/1998	Miyoshi	
		US- 5,969,426	10/19/1999	Baba	
		US- 6,407,456 B1	06/18/2002	Bali	
		US- 6,157,080	12/05/2000	Tamaki et al.	

FOREIGN PATENT DOCUMENTS

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Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)						
		JP 02-158147	06/18/1990	Shoichi		
		JP 59-48949	03/21/1984	Katada		
		JP 5-343603	12/12/1993	Mizunashi		
		DERW 2001-577215	05/07/2001	Han		
		JP 02001308140	11/02/2001	Urushima		
		JP 04-155857	05/28/1992	Tamaki		

Examiner Signature	<i>Ex. H. H.</i>	Date Considered	<i>7/5/05</i>
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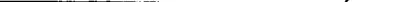
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Substitute for form 1449/PTO				Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/796,246
				Filing Date	March 9, 2004
				First Named Inventor	Salman Akram
				Art Unit	2811
				Examiner Name	Mitchell
Sheet	2	of	5	Attorney Docket Number	MIO 0069 VA/40509.245/99-1058.01

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>JMM</i>		"Multi-Chip Module on Laminate, High-performance packaging for today's silicon," IBM Microelectronics, 1998	

Examiner Signature		Date Considered	3/5/05
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JAY		US- 2002/0074668 A1	06/20/2002	Hofstee et al.	
		US- 2002/0079567 A1	06/27/2002	Lo et al.	
		US- 5,444,296	08/22/1995	Kaul et al.	
		US- 5,652,463	07/29/1997	Weber et al.	
		US- 5,674,785	10/07/1997	Akram et al.	
		US- 5,808,878	09/15/1998	Saito et al.	
		US- 5,952,611	09/14/1999	Eng et al.	
		US- 5,973,403	10/26/1999	Wark	
		US- 6,013,948	01/11/2000	Akram et al.	
		US- 6,020,629	02/01/2000	Farnworth et al.	
		US- 6,262,488 B1	07/17/2001	Masayuki et al.	
		US- 6,265,771 B1	07/24/2001	Ference et al.	
		US- 0015485 A1	08/23/2001	Song et al.	
		US- 6,316,727 B1	11/13/2001	Liu	
		US- 5,107,328	04/21/1992	Kinsman	
		US- 5,646,828	07/08/1997	Degani et al.	
		US- 5,677,566	10/14/1997	King et al.	
		US- 5,811,879	09/22/1998	Akram	
JAY		US- 6,181,002	01/30/2001	Juso et al.	

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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
JAY		JP 61-147559	07/05/1986	Takegawa		
JAY		WO 97/37374	10/09/1997	Herrell		

Examiner Signature	Date Considered
JAY	7/5/05

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